GAINING SELF-DETERMINATION SKILLS THROUGH PEER MENTORING BETWEEN STUDENTS WITH SIMILAR PHYSICAL IMPAIRMENTS: A CASE STUDY

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ABSTRACT

Two children with similar physical disabilities were paired as mentor and mentee as a strategy of teaching self-determination skills. In this case study, the mentor was a junior in high school with a physical impairment and had possessed the desired qualities of self-determination according to transition rating scales. The mentee was a fifth-grade student with the same physical impairment, but according to adaptive behavior rating scales, needed to acquire self-determination skills as a means of increasing independence. A mentor program was created between the students to determine if the program would have a positive impact for teaching self-determination skills. Results indicated that the peer mentoring program increased the mentee's progress on Individualized Education Plan goals by an average of 75 percent.

This article describes how peer mentoring was used as a strategy for teaching self-determination skills between two students with similar physical disabilities. A qualitative design was utilized involving semi-structured observations and interviews to explore the experiences and perspectives of the participants who engaged in the mentoring sessions.

The study transpired based partially on trends in special education which indicated a need for students with disabilities to obtain the skills necessary to become effective self-advocators and to be as independent as possible. The terms self-advocacy and self-determination are often used interchangeably

(Field, 1996). In most cases, self-advocacy is viewed as a component of self-determination and has been within this research. A consensus definition accepted by many experts in the field is:

Self-determination is a combination of skills, knowledge, and beliefs that enable a person to engage in goal-directed, self-regulated, autonomous behavior. An understanding of one's strengths and limitations together with a belief in oneself as capable and effective are essential to self-determination. When acting on the basis of these skills and attitudes, individuals have greater ability to take control of their lives and assume the role of successful adults. (Field, Martin, Miller, Ward, & Wehmeyer, 1998, p. 2).

Self-determination is not limited to individuals with special needs but applies to the general population. The basic definition for self-determination then is to possess the desire to be in control of one's fate; the desire to manage and control one's own environment (Deci & Ryan, 1985). The opposite outcome of self-determination is learned helplessness. Learned helplessness is the belief that one has no control over one's environment (Bentham, 2002). This can also influence self-esteem. Based on student observations and slow progress on I.E.P. goals which required increased independence, it was determined that learned helpless was a trait of a participant in the case study. By gaining self-determination skills, the desired result was to abolish some if not all characteristics of learned helplessness.

To further define self-determination and its role in the case study, the following components and subcomponents are listed as defined by Wehmeyer, Agran, and Hughes (1998): (1) choice making, (2) decision making, (3) problem-solving, (4) independent living (risk taking and safety skills), (5) goal setting and attainment, (6) self-observation, evaluation, and reinforcement, (7) self-advocacy, (8) positive self-efficacy and outcome expectancy, (9) internal locus of control, and (10) self-awareness.

Self-advocacy is an important part of self-determination and is widely discussed when planning special education goals for students in the transition age. Self-advocacy does not have a consensus definition but is described as having its own set of components which include (1) knowledge of self, (2) knowledge of rights, (3) communication, and (4) leadership (Abery, Rudrud, Arndt, Schauben, & Eggebeen, 1995; Durlak, Rose, & Bursuck, 1994).

Research indicated that instructional strategies designed to promote self-determination and self-advocacy are typically either unknown or not taught by classroom teachers (Agran, Snow, & Swaner, 1999). Recently, Mason, Field, and Sawilowsky (2004) reported that studies on the teaching of these skills indicate that only 58% of teachers systematically taught the skills but

86% of them believe that self-determination and self-advocacy were very important. Most of those teachers surveyed also reported that they did not instruct students in the skills due to a lack of knowledge about how to teach them. Yet each year at Individual Education Planning (I.E.P.) meetings, teams specify the need for students to develop self-determination skills, particularly focusing on independent living, self-awareness, and self-observation for students (Doll, Sands, Wehmeyer, and Palmer, 1996). This is true, specifically in this study, for those serviced under the categorical area of physically impaired.

Thus the challenge lies within the question: How can a student best develop self-determination skills when special educators struggle to find a means to effectively teach the skills? Peer mentoring emerged as a strategy to teach self-determination skills.

This study was created by a teacher of students with physical disabilities who served 12 school districts for a special education cooperative. An I.E.P. team, which the physical disabilities teacher was a part of, was in need of strategies for teaching self-determination skills to a fifth-grade student with spina bifida. The special education teacher was not having success teaching the skills in a small group or one-on-one approach. The I.E.P. team consisted of physical and occupational therapists, adaptive physical education teachers, parents, classroom teachers, a special education teacher, a physical health disabilities teacher, and a paraprofessional. The specific self-determination goals for the student were identified as (1) increased independence with self-help skills (transferring to and from a mat, changing clothes, etc.), (2) self-awareness or self-knowledge, (3) self-regulation skills, and (4) self-advocacy.

Research completed by Haensly (1989) supports mentoring as a way of deepening self-knowledge and as a personal guide for extraordinary development and self-actualization. Without the kind of personal attention to their individual growth needs provided by a mentor, many youth will not gain the skills. A mentor is described as a more skilled and experienced person who is active and dynamic (Young & Wright, 1999). A mentee is defined as a person who receives support and guidance from an experienced person, i.e. mentor. The intended outcome of the mentor-mentee case study is summarized by the statement:

Mentoring relationships are considered to be beneficial in promoting competence and providing self-assurance and support in the face of new situations. If mentors engage in activities with adolescents that expand their competence, encourage them to engage in other such activities, and extend the range of people with whom they interact, then they should have a positive impact on the adolescent's development. (Hurrelmann & Hamilton, 1996, p. 98)

Prior studies provided empirical evidence on mentoring as a successful means to (1) provide guidance, (2) assistance, (3) encouragement, (4) prepare the mentee for overall independence, and (5) help in dealing with personal issues (Herrara, 1999). Newby & Heide (1992) have also found positive results in mentoring programs between students without disabilities guiding students with disabilities. The end results of mentoring programs coincide with desired self-determination skills for people with disabilities. Students need instruction and modeling in self-advocacy in order to gain desired skills, (Izzo & Lamb, 2002). Other findings on the effects of peermediated programs support the idea and results of this case study. Most students in peer-mediated programs have demonstrated improvements in self-concept, growth in social skills, and improved friendship skills (Kamps, Kravits, Stolze, & Swaggart, 1998). Prater, Bruhl, and Serna (1998) found that students teaching other students are frequently more effective than teachers teaching students.

Yet to be examined however, are the effects of peer mentoring between students with physical disabilities. Farmer and Farmer (1996) found that students with disabilities tended to affiliate with other students who were similar to them with regard to their personal or social characteristics. Therefore, the purpose of this study was to investigate the effects of peer mentoring between youth with similar physical disabilities in teaching identified self-determination skills as determined by I.E.P. goals.

METHOD

PARTICIPANTS AND SETTINGS

Participants were two students with the physical impairment spina bifida. The facilitator of the study was a physical health disabilities teacher (P/HD) who worked with both the mentor and mentee. The students were selected for the study based on (1) I.E.P. identified strengths and needs, (2) personalities, (3) similar physical disability characteristics, and (4) schedule flexibility to be a mentor and mentee as identified by the separate teams and the common team member (P/HD teacher) between the districts.

After the students were selected, the medical records of each participant were reviewed to compare diagnoses. Findings revealed that both students had a diagnosis of spina bifida (myelomeningocele). This type of spina bifida occurs when a section of spinal cord nerves (which stem from the cord) are

exposed and visible on the outside of the body at birth (Best, Bigge, & Heller 2001). Additionally, both students experience like symptoms of spina bifida: loss of bowel and bladder control along with hydrocephalus. The students also had many similar surgeries often required with spina bifida. School records were reviewed along with medical records to gather more information on the students, which are described in the mentee and mentor sections. Educational implications for the pair included difficulty with short-term memory, organization in all areas of their life, and distractibility.

MENTEE

The names of the participants were changed to protect the individuals' confidentiality. Josh, an 11-year-old male with spina bifida, was in fifth grade in a rural town with a population of approximately 600. He lived near his school with his grandparents and three siblings. In school, Josh received paraprofessional support for 80% of his day. He was in the general education classroom for two class periods per day and received specialized instruction in the areas of reading, writing, math, and functional skills. Over the last school year, Josh had made gains in academics. However, he still needed to function independently and socially with peers and adults and to learn more about his disability, which included how to become an effective self-advocate.

Socially, Josh displayed many lower level attention-getting behaviors which interfered with daily activities and progress. The attention-getting behaviors were as follows: (1) yelling down the hallway at students and adults, (2) often asking for high fives and praise, (3) dropping things on the floor for others to pick up, (4) asking the same question 10–15 times a day, and (5) running into objects with his wheel chair.

Josh needed to eliminate negative attention getting behaviors and demonstrate on-task behaviors: working on an activity without cues or praise, moving down the hallway without yelling to others, beginning tasks immediately, and moving on from mistakes without apologizing.

Additionally, Josh needed to increase his ability to be more independent. Josh's motivation to complete daily tasks by himself was not adequate for his ability level. Josh displayed the characteristics of learned helplessness, he possessed the necessary skills to become independent, but still expected others to complete tasks for him. When confronted with a difficult task, or a task he did not wish to complete, Josh would say, "I don't know how to do it," or "Can you help me with this?"

There are many skills in school which Josh needed to complete by himself including: (1) using the bathroom, (2) transferring from his wheelchair to his desk, (3) gathering his homework, (4) using his schedule, (5) telling

time, (6) including himself in the lunch room, playground, and physical education activities, and (7) following adult instructions.

MENTOR

Nick, 17 years old, was a junior in high school with spina bifida. He resided in a town with a population of approximately 11,000 with his parents and two siblings. Nick was described by his I.E.P. team as being a great advocate for his needs and accommodations, being independent in self-help cares (i.e., dressing, changing, personal care tasks), and communicating needs with his teachers. He took all of his classes in the general education setting and received special education services for organization and study skills three times a week for 20 minutes per session. Nick scored at peer level on the Enderle-Severson Transition Rating Scale-J-Revised (ESTR-J Revised) transition assessment for learners with mild disabilities in the areas of recreation and leisure, community participation, jobs and job training, and home and daily living.

Nick's abilities to self-determinate were linked to his family's influence and his involvement in adaptive recreation clubs as well as being a spokesperson for a state children's hospital. Nick's family made it Nick's responsibility to manage his physical needs, appointments, and social schedule for the majority of his teenage years. His parents have taught Nick that his physical impairment was not a reason to stop participating in activities or from being independent in all areas of his life. Nick's parents were involved in support groups, attended conferences on spina bifida, and have a family social worker. Nick had a younger brother with a cognitive disability whose needs were managed in the same manner as Nick's, according to the records.

MENTOR AND MENTEE COMPARISON

Both students were paraplegic and used manual wheelchairs. Josh and Nick resided approximately 20 miles from each other. Josh was the only student in his school district who used a wheelchair. Nick was among four students in the high school who traveled in wheelchairs. Nick was involved in adaptive recreational activities for people with physical disabilities, participated in school events, and was a spokesperson for a children's hospital. Josh lived 20 miles from the nearest grocery store and only left home with his grandparents for health care appointments and to complete errands on an average of two times per month. Both shared interests in similar recreational activities, such as watching sports on television and spending time with friends and family. Nick was proficient at adaptive sports where Josh was interested but had not had the opportunity to participate.

Procedure

The steps for the study were to (1) obtain consent from parents and guardians of the participants, (2) review school and medical records to gather background data and ensure likeness between the students, (3) receive approval from each schools' principal, (4) approach the participants individually and explain their role as mentor/mentee, (5) schedule transportation between school districts, (6) plan activities for each meeting based on self-determination needs, (7) practice and train mentor with skits for discussion topics with the mentee at the mentor's school, (8) facilitate mentor/mentee sessions and take observational notes, (9) interview mentor and mentee individually the day after each session separately and record the interview, and finally (10) interview participants' special education teachers to gather information on any noted progress after each session. The information collected during the observations of the sessions, mentor and mentee post-interviews, and the teacher interviews are retained in direct quotes as part of the data collection. The following paragraphs will describe how the case study procedure was executed.

In general, mentors are often assigned to youth with little consideration of how they may be perceived and integrated within the youth's pre-existing social network (DuBois, Holloway, Valentine, & Cooper, 2002). Therefore, the following guidelines were used when planning the mentor-mentee sessions in order to increase the value of the mentoring program (Peck, 2004). First, a clear set of goals and objectives were established; second, participants were oriented (outlined the purpose), and third, mentor personal characteristics, skills, and goals were evaluated to match the needs of the mentee.

Legal guardians for each student signed consent forms. The principals of each student's school district approved the study. The mentor and mentee signed assent forms (Appendix A) which explained their role and potential outcomes of the sessions. Case managers wrote the mentoring sessions in the adaptation section of the students' I.E.P.s, which included a statement that the student would have the opportunity to participate in mentoring sessions one time per month and that transportation would be provided by the district when necessary. Meeting times were scheduled at various places: (1) the mentor's school, (2) the mentee's school, (3) the mentor's house, and (4) at a restaurant for lunch. All meetings were supervised by the physical health disabilities teacher (P/HD teacher), and conversations were practiced before each meeting and facilitated at the actual sessions by the P/HD teacher. Sessions were practiced with the mentor by completing a skit of the conversation between the Josh and Nick and what topics of self-determination would be covered in the meeting as determined by the P/HD teacher. Before

each meeting a permission slip was sent home to the families of the participants by the case managers. It was signed and returned before any traveling occurred.

After the forms were signed and all people involved were aware of the plan, communication began between the students by email. Nick, the mentor, sent the initial email asking questions about the mentee's school, interest in sports, and general introduction of his interests and personal information (e.g. number of siblings, favorite hockey team). This was done with the assistance of the physical health disabilities teacher (P/HD teacher) who worked with both students. Once Josh received the email, the P/HD teacher assisted in writing a response, fostering further communication (Hill & Sword, 2002).

Following the receipt of two emails each, meetings were set. Josh visited Nick at school for approximately two hours with four activities scheduled: (1) tour of the school, (2) meeting with Josh, Nick, and the P/HD teacher, (3) lunch in the school cafeteria, and (4) playing basketball in the gym. The P/HD teacher traveled in the van with Josh; Nick met Josh outside of the school. The pair wheeled around the school and then met in a small office to talk. As conversation became easier, the mentor was asked to share what selfadvocacy tasks he completes. Nick modeled how he transfers in and out of his wheelchair to a desk, shared how he carries all of his own books, talked about similar surgeries they have had, and Nick asked Josh what he knew about spina bifida. Nick shared more facts about spina bifida, for example, how it impacts learning. Nick also shared what self-care tasks he has learned to do for himself. Nick made sure to behave in a manner that he wished Josh to emulate and told him about his challenges and some of the difficult situations he has faced; such is a requirement of being a mentor (Moccia, Schumaker, Hazel, Vernon, & Deshler, 1989).

The second experience took place at Josh's school. Josh gave Nick a tour of his elementary school and introduced him to his fourth grade class. Nick shared information on spina bifida and answered questions the class had about using a wheelchair, what he likes to do, how he drives, and whether or not he has friends. The two met in a small room with the P/HD teacher present. The mentor, Nick, had note cards with cues on what skills to cover during the meeting time. He asked Josh to transfer from his wheelchair to a desk, talked to him about why it is "cool" to be quiet in the hallway, and modeled how to pick items up off the floor. Table I at the end of the manuscript describes desired self-determination skills and what occurred at each mentor session.

TABLE 1.

Desired Self-determination Skills and Mentor Sessions

Mentor-Mentee Encounters	Self Determination Skills		Outcomes
Encounter 1: Nick's School	Nick gave Josh a tour of his school, played basketball, visit- ed together.	Model wheelchair transfers, inde- pendence in hallways, similar experiences of spina bifida.	Exposure to person with similar disability Increased selfesteem and self-awareness
Encounter 2: Josh's School	Josh gave Nick a tour of his school, Nick spoke to Josh's class about spina bifida.	Nick observed Josh's progress in transfers, Nick discussed Josh's demeanor in the hallways, Nick modeled picking up items off the floor in his wheelchair	Increased knowledge of spina bifida Instilled confidence for being more independent at school
Encounter 3: Nick's Home	Josh toured Nick's house, rode in the elevator, tried the accessible bathroom sinks, and kitchen counter top	Josh set the table for lunch by following Nick's directions, transferred himself in and out of shower chair, trialed Nick's hand-cycle	Learned what is needed to be more indepen- dent at home

(Continued on next page)

The third meeting took place at the mentor's home. The suggestion was made by his mother because the family recently had an elevator installed and also had an accessible bathroom. Nick gave Josh a tour of his home which

TABLE 1. (continued)

Desired Self-determination Skills and Mentor Sessions

Mentor-Mentee Encounters Encounter 4: Restaurant	Self Determination Skills		Outcomes
	Nick showed Josh how to find a wheelchair accessible table and how to quietly navigate to seat	Nick helped Josh order off the menu and cued him to stop inappropriate behaviors	Learned important questions to ask for accessibility in a restaurant Increased appropriate social skills
Encounter 5: Josh's school	Nick drove his accessible van to school and showed Josh how he gets in and out of it and drives it	Nick made Josh transfer himself in necessary settings, showed him how he is quiet in the halls, and discussed adap- tive recreational opportunities	Trial of a hand-cycle from a local service for people with physical disabilities, ability to transfer, help with changing, and positioning throughout his school day, and exposure to methods of driving despite disability

included a ride in the elevator, trying the accessible bathroom, and using ramps to get in and out of the house. Josh was instructed by his mentor to try each home accessible area independently. He rode the elevator down to the basement, transferred himself in and out of the shower chair with minimal assistance, washed his hands, and returned upstairs. Josh was also asked to obtain items off of the counter in the kitchen for lunch and use the lowered cutting board as a serving area. Nick showed Josh his hand driven adapted bike and demonstrated it for him. Josh also took a turn on the bike.

As documented in Josh's I.E.P., social skills needed to be improved; the fourth meeting took place at a restaurant in Nick's town. The two met for

lunch with the P/HD teacher and Josh's paraprofessional. The adults stayed back while the two participants picked a table. Nick showed Josh how to move a chair out of the way, instructed and modeled what types of questions to ask the servers (i.e. table with space around it to wheel from our seats to the door, a place to put the extra chairs). Josh did not know how to order off the menu so Nick helped him by using the pictures. Josh talked loudly before the meal arrived, continuously asked for high-fives, and flapped his hands. Nick quietly gave him reminders and cues to stop the behaviors. Josh's behaviors decreased at the third reminder as he began paying more attention to Nick and began following his lead. Josh had difficulty navigating out of the restaurant, as it was more crowded than when he arrived. He also needed Nick to remind him to look for the accessible part of the curb and to look before crossing the road.

The final session was at Josh's school. Nick recently obtained his driver's license so he was able to drive to the school. He drove an accessible van with the brake and gas pedals on the steering wheel. Josh met Nick at the front doors. The two had lunch together which Josh brought from his home. They played basketball in the gym and discussed Josh's goals. Nick asked Josh to perform a number of self-help tasks to check on his progress. The tasks included transferring onto a mat table used for range of motion activities, getting out of his chair to the floor and back up, and wheeling around the school while being quiet in the halls. Important to mentoring was matching the pair based on preferred recreational activities and areas of specialized expertise (Block & Dopp, 2004). As a result, Nick brought resources for adaptive recreational opportunities in a nearby community for people with physical disabilities. Nick shared the events in which he participates (skiing, cycling, wheelchair basketball, and floor hockey). At the end of the meeting, Josh toured Nick's van, where he observed Nick transferring himself in and driving with special hand adaptations.

RESULTS

Findings were based on common themes which emerged from observations during mentoring sessions, and the quotes from the participants collected during each session. Themes were further validated through progress on team identified goals for the mentee through the I.E.P. progress reports along with collateral responses on the final interview. Throughout this section quotes from both the mentor and mentee are included as data collected from the research.

The students occasionally spoke about their experience being a mentor and having a mentor before or after a session. Results were organized according to (1) benefits that I.E.P. team members perceived through progress recorded on I.E.P. goals, (2) extent to which the mentee retained the skills, and (3) information from mentee interview.

Josh's I.E.P. goals focused on increasing his self-determination skills. Since Josh needed to work on all areas of self-determination, the team decided to broaden the goals so all could be addressed in the mentoring situations. Further, the team agreed to refrain from using direct instruction to teach the goals which allowed for the mentoring sessions to teach the skills. The team only provided Josh with reminders during the school day. Two main goals were established near the end of last school year as shown in Table 2. Mentoring sessions began one month into the new school year, with a three month break between instruction. Table 2 describes Josh's I.E.P. goal progress after the mentoring program concluded.

The P/HD teacher met with each student before and after each mentoring session, gathering direct quotes from the participants. The purpose was to plan goals with the mentor and to prepare the mentee by practicing conversations to have with his mentor (Haensly & Parsons, 1993). After the first meeting Josh had the following to say:

TABLE 2 Josh's I.E.P. Progress Post-Mentoring

Goal I Given a challenging situation, Josh will use a problem-solving process. Josh will show a 90% success rate on a daily basis.

Goal 2 Josh will increase his independent skills from asking others for assistance, to attempting to complete tasks such as transferring in and out of his wheelchair, choosing a leisure activity, and completing assignments. Josh will show an 80% success rate.

Upon completion of five mentoring sessions, Josh was at 70% success rate.

Upon completion of five mentoring sessions, Josh met his goal at 80%.

"This is the greatest day of my life . . . he is so cool . . . man, he's just like me . . . he is so strong . . . I bet he can do more pull-ups than me . . . when can I see Nick again?"

Nick had the following comments during a brief post-interview with the P/HD teacher:

Throughout scheduled meetings with the mentor, it became apparent that the encounters were influencing his self-determination needs. Nick seemed to gain more control of his own life after spending time with Josh based on the following quotes:

"I really need to see Josh . . . I miss him . . . I can teach him how to be more independent . . . he is strong enough to do things on his own; I'll show him . . . how can I help him more? . . . I can't wait to see Josh again."

Between encounters, Josh reported to the P/HD teacher that:

"Nick is the best . . . I want to be like him . . . I've been transferring myself . . . I can ride a bike like Nick's? . . . how's Nick? . . . I miss him . . . tell Nick hi . . . how are his grades?"

To complete the program a final interview was scheduled (Wehmeyer, 1996). The interview occurred in a quiet room between the P/HD teacher and Josh at his school. Josh answered a series of questions regarding his experience. Answers were recorded on a notepad as the participant answered. Paraphrasing of the interview was necessary to ensure Josh understood what was being asked but did not change the intent of the questions (Appendix B). Josh's answers are summarized in the following paragraph to reflect his experience with the program.

The first thing Josh remembered learning from his mentor was independence and thought it was fun to talk to someone with the same disability as his because he has never met a person paralyzed from the waist down. Josh liked talking to a person who uses a wheelchair better than a person who is not and assessed himself as being more proficient at wheeling up ramps, helping with self-care tasks, and explaining spina bifida after meeting with his mentor. Josh's favorite thing about having a mentor was getting to talk to him and his best memory was going to Nick's house.

In between sessions, the participants exchanged in a maximum of two emails and one phone call to each other, all taking place at school. Conversations consisted of reminders from the mentor to work on specific self-determination skills and discussing future meeting plans. The mentee worked on his self-determination skills with limited directions but frequent reminders from his special education teacher and paraprofessional. This information became data on progression of I.E.P. goals. Although reinforced by school staff, skills gained by the mentee continued but only improved with intermittent reminders and encouragement from his mentor.

DISCUSSION

Based on the results from the data collected on I.E.P. goals as well as information collected through observations and interviews, peer mentoring between the students in this case study with similar physical disabilities, increased the acquisition of self-determination skills. Benefits of the mentoring program were assessed by measured success on the mentee's I.E.P. goals and information collected from participant and teacher interviews and observations. The most frequently observed benefits were: (1) improved self-advocacy, (2) increase in self-knowledge, (3) decrease in assistance required to complete self-help skills (4) exposure to methods of becoming more independent through the home visit, (5) increase in exposure to adaptive equipment (i.e. hand-cycle, home elevator, wheelchair basketball), and (6) an increase in appropriate behaviors at school and in the community (i.e. quiet in the halls, appropriate questions to ask in a restaurant, and a decrease in shouting out answers in class). Earlier discussed findings from Prater, Bruhl, and Serna (1999) came to fruition: students teaching other students are frequently more effective than teachers teaching students. This supported the effects recorded in the final interview and I.E.P. goal attainment described in this article.

Through informal interviews, members of Josh's I.E.P. team noticed an increase in the self-determination skills of self-assurance, decreased requests for help with transfers, changing, and with school work, and decreased undesirable behaviors in the classroom. Josh made gains on the components of self-determination of self-regulation skills, self-advocacy skills, and self-awareness or self-knowledge skills. Self-regulation skills refer to teaching students to examine their environments and to solve problems and employ self-management strategies (Wehmeyer & Schwartz, 1998). Josh's specific self-advocacy skills were in the leadership component. Josh was able to direct his paraprofessional to meet his needs. Self-knowledge or self-awareness

describes Josh's ability to be more aware of his behavior in the halls and in the classroom.

The observations of staff involved with both students as well as their interpretations of the sessions have been included as part of the data. For instance, Josh's paraprofessional attended two of the four meetings. During the sessions, the paraprofessional questioned the mentor about spina bifida and what she can do to foster Josh's overall independence. Nick was able to provide her with applicable data. The paraprofessional shared with the P/HD teacher that Nick's information increased her comfort level for working with a student with spina bifida.

An additional factor that played a larger role in the sessions than expected was how Josh's cognitive level impacted the study. Josh needed coaching on what to ask his mentor before each session (Hamill & Everington, 2002). His conversation was repetitive with Nick. Josh would comment five to seven times during a meeting, "How's your mom?" or "how are you doing," or "this is the best." Nick had a difficult time discussing every day topics due to Josh's limited experiences and exposure to current events, thus displaying difficulty in staying strictly with the discussion previously practiced with the P/HD teacher.

A further pertinent aspect was Nick's feelings about his performance as a mentor. Before each session, Nick shared that he was frustrated with Josh. He wanted him to be more independent at a quicker rate. Nick also felt it was his fault that Josh was not more of a self-advocate. The P/HD teacher reassured Nick of his positive influence on Josh's life and shared observations his mentee's teachers made on his progress. A suggestion for completing similar programs would be to have implemented mentor self-assessments to be reviewed by the facilitator (Rhodes, 1994) so to more closely monitor the mentor's feelings and to provide reassurance.

Final suggestions for continuing the mentor groups include writing Individual Education Plan goals in the areas of self-determination and continuing to include opportunities and transportation under the adaptations section (Wehmeyer, Agran, & Hughes, 1998). An important component to the program is having a primary facilitator involved to direct discussions, observing meetings, and preparing the student before each meeting, and to interviewing the students' post sessions. Time must be set aside prior to the school year for mentoring to occur on a regular basis to maximize the outcome on gaining self-determination skills.

LIMITATIONS OF THE STUDY

The first limitation of this study is related to the number of participants. The number was limited in an effort to provide the students and the I.E.P. teams with a high level support and guidance. The level of support provided by the physical disabilities teacher would not have been as direct and frequent if the number of participants was larger due to demographic limitations of the school districts involved in the study. Additionally, formal training for the mentor could be beneficial. This would assist in addressing the emotional impact being a mentor had on Nick. Providing Nick with training on empowerment to help Josh with learned helplessness would be a useful step in expanding Josh's independence.

AREAS FOR FURTHER STUDY

Recommendations for further study include administering a self-determination assessment scale to verify results to provide more concrete data. This would also be helpful to document the results of mentoring over an extended period of time, as well as for developing new goals and objectives. Continuing the program would also aid in teaching the transitional areas and developing specific goals and objectives in the five areas (home and daily living, postsecondary, recreation and leisure, community, and vocational). Another pertinent component to study more closely would be necessary frequency for scheduled meetings between mentor and mentee to maintain or increase developed skills of self-determination.

Conclusion

As self-determination skills continue to be a need for students in special education throughout their lives, starting early and learning from someone who has mastered those skills is a productive means of meeting these needs. The most powerful yet immeasurable data beyond direct quotes was the smile on the participants' faces during encounters with each other. The sense of empowerment instilled within the mentor became a true compliment to Nick. Nick went from being someone who has to take direction from others and has to ask for help to being the person in charge. This observation remains an important piece of data. The mentor's special education team noticed a difference in his attitude after a two week lapse of time between sessions. Once the mentor-mentee pair met, the previously noted negative attitude would diminish.

The relationship between the participants spread into their homes. Both families noticed a difference in their child's confidence level and stated at their child's annual I.E.P. meeting that they would like the mentoring to con-

tinue and to be included in new I.E.Ps. Within the school building, Josh's classroom teacher used Nick as an example when the class had questions about peers with disabilities. In the future, Nick will be providing in-services to Josh's class at the beginning of each school year, as requested by the elementary principal.

Thus, based on interviews with the mentee's I.E.P. team, pairing two students as mentor-mentee with similar disabilities gave both participants feelings of empowerment, comfort, safety, and confidence. Anecdotal data were collected through observations as well as staff and student interviews which led to progress made on the mentee's I.E.P. goals. Thus, in this case study it was found that by combining the need for methods to teach self-determination skills with the positive and established effects of mentoring proved to be an effective strategy for teaching self-determination skills to a student with a physical impairment. The summarized statement on mentoring relationships was validated in this research: a mentor engaged in activities with an adolescent that expanded his competence, having a positive impact on the adolescent's development of independence and self-knowledge.

APPENDIX A

ASSENT FORM

MENTOR-MENTEE PROGRAM FACILITATOR: PHYSICAL DISABILITIES TEACHER

I am asking if you would like to have a mentor who is just like you but a little older. The mentor would be a person that you could talk to about your disability because the mentor has the same disability as you. I know you have friends in school but what about talking to a person who has experienced some of the same things you have like surgeries, driving a wheelchair all over the school, having to leave class to meet with your physical therapist and more things like that. By having a mentor, you will be part of a study.

If you agree to meet your mentor, I will ask you to communicate with the person over email, meet the person at your school, and continue to meet about five times throughout the school year.

You might get along great with your mentor and learn even more about your disability. You might gain new skills and learn how to be more independent and find out more about what is available for you to do in your community.

Being in this study is totally up to you, and no one will be mad at you if you don't want to do it. You can ask any questions that you have about this study. If you have a question later that you didn't think of now, you can ask us next time.

Signing here means that you have read this paper or had it read to you and that you are willing to be in this study. If you don't want to be in this study, don't sign. Remember, being in this study is up to you, and no one will be mad at you if you don't sign this or even if you change your mind later.

Signature of participant	
Signature of person explaining study	
Date	

* If you have any additional questions or concerns regarding your role please contact:

APPENDIX B

QUESTIONS FROM FINAL INTERVIEW WITH MENTEE:

- 1. What did you think about your mentor when you first met? Cool guy
- 2. Tell me the first thing you remember learning from your mentor. Independence
- 3. What are your feelings about talking to someone who has the same disability as you?
 - Really fun, I've never met a kid paralyzed from the waist down
- 4. What is the same or better than talking to a friend who does not share your disability?
 - Felt better about myself, Nick is better cause he's in a wheelchair
- 5. What things (school work, self-care, sports involvement) do you think you are better at since the sessions with your mentor?

 Wheeling up ramps, using a hand-cycle, transferring more, Nick explaining spina bifida—I need to learn how to tell what it is

6. Have any teachers or family members noticed any of the new skills you have gained?

Noticed how good I can change myself

- 7. Tell me three things you have gained from having a mentor. What spina bifida is, transfer self more, how to ride a bike
- 8. If you could change one thing about having a mentor what would it be? Nothing, see him more
- 9. What is your favorite part of having a mentor? Getting to talk to him
- 10. Is there anything else that happened during the school year that you would like to tell me?
 - I did 15 pull-ups. Playing with someone, I need ideas of what to play
- 11. Is there anything I forgot to ask about your mentor that you would like to share?

No

12. What is your favorite memory you shared with your mentor? Least favorite?

Meeting, liked everything but the best was going to his house, using the elevator, and eating pizza

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